

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electromotive machine comprising a stator element and a rotor element,

wherein the stator element comprises at least one set of [N] a plurality of toroidally shaped electromagnetic members, wherein each of the at least one set of toroidally shaped electromagnetic members arranged along an arc a predetermined distance apart defining a stator arc length, each of the electromagnetic members having a slot,

wherein the rotor element comprises a disc adapted to pass through the slots of the electromagnetic members, the disc containing a plurality of permanent magnet members spaced side by side about a periphery thereof and arranged so as to have alternating north-south polarities, the permanent magnet members being sized and spaced such that within the stator arc length the ratio of electromagnetic members to permanent magnet members is N to N+1, and

wherein N equals a number of electrical excitation phases applied to the electromagnetic members, and

wherein when operating as a motor the electromotive machine is self-starting.

2. (New) The electromotive machine of claim 1, wherein:

each of the electromagnetic members having a core providing a magnetic path passing through the slot, the plurality of permanent magnet members arranged to pass through the magnetic path in the slot.

3. (New) The electromotive machine of claim 2, wherein the ratio of electromagnetic members to permanent magnet members is based on a relationship of two to three.
4. (New) The electromotive machine of claim 3, further comprising Hall effect sensors, wherein the Hall effect sensors are positioned on the stator assembly and provide timing signals for controlling the selective energizing of the electromagnetic members.
5. (New) The electromotive machine of claim 4, wherein the electromagnetic members are selectively energized so as to provide four repeating commutation intervals.
6. (New) The electromotive machine of claim 1, wherein a control module controls the electromotor to operate as a motor in a first mode of operation and to operate as a generator in a second mode of operation.
7. (New) The electromotive machine of claim 1, wherein the electromagnetic members are selectively energized so as to provide $2N$ (two times the number of electrical excitation phases) repeating commutation intervals.

8. (New) A self-starting electromotor, comprising:

a stator element comprising at least one set of a plurality of toroidally shaped electromagnetic members, each of the electromagnetic members having a core defining a slot, each electromagnetic member adapted to respond to an electrical excitation phase to provide a magnetic path through the slot, wherein each of the at least one set of a plurality of toroidally shaped electromagnetic members are arranged along an arc a predetermined distance apart defining a stator arc length wherein the slots are aligned with each other; and

a rotor element comprising a disc having a plurality of permanent magnet members spaced side by side about a periphery thereof and arranged so as to have alternating north-south polarities, the permanent magnet members adapted to pass through the slots of the electromagnetic members, the permanent magnet members being sized and spaced such that within the stator arc length the ratio of electromagnetic members to permanent magnet members is N to $N+1$, and

wherein N also equals a number of electrical excitation phases applied to the electromagnetic members.

9. (New) The electromotor of claim 8, further comprising Hall effect sensors, wherein the Hall effect sensors are positioned on the stator element and provide timing signals for controlling the selective energizing of the electromagnetic members.

10. (New) The electromotor of claim 8, wherein the electromagnetic members are selectively energized so as to provide four repeating commutation intervals.

11. (New) The electromotor of claim 8, wherein a control module controls the electromotor to operate as a motor in a first mode of operation and to operate as a generator in a second mode of operation.

12. (New) The electromotor of claim 8, wherein the ratio of electromagnetic members to permanent magnet members is based on a relationship of two to three.

13. (New) The electromotor of claim 8, wherein the ratio of electromagnetic members to permanent magnet members is based on a relationship of three to four.

14. (New) The electromotor of claim 8, wherein the ratio of electromagnetic members to permanent magnet members is based on a relationship of four to five.

15. (New) The electromotor of claim 8, wherein the ratio of electromagnetic members to permanent magnet members is based on a relationship of five to six.

16. (New) The electromotor of claim 8, wherein the ratio of electromagnetic members to permanent magnet members is based on a relationship of six to seven.